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53



GROUP 1814 # 12 05/08/92 06:30:37

Raw Sequence Listing

oslecke Fred OK) PUGAISKY

Patent Application US/07/625,668A

1 SEQUENCE LISTING 2 3 (1) GENERAL INFORMATION: 6 (i) APPLICANT: WALLACH, DAVID 7 NOPHAR, YARON KEMPER, OLIVER 8 9 ENGELMANN, HARTMUT BRAKEBUSCH, CORD 10 ADERKA, DAN 11 12 13 (ii) TITLE OF INVENTION: EXPRESSION OF THE RECOMBINANT TUMOR 14 NECROSIS FACTOR BINDING PROTEIN I (TBP-I) 15 (iii) NUMBER OF SEQUENCES: 26 16 17 (iv) CORRESPONDENCE ADDRESS: 18 19 (A) ADDRESSEE: Browdy and Neimark 20 (B) STREET: 419 Seventh Street, N.W., Suite 300 21 (C) CITY: Washington (D) STATE: DC 22 (E) COUNTRY: USA 23 24 (F) ZIP: 20004 25 26 (v) COMPUTER READABLE FORM: 27 (A) MEDIUM TYPE: Floppy disk 28 (B) COMPUTER: IBM PC compatible 29 (C) OPERATING SYSTEM: PC-DOS/MS-DOS 30 (D) SOFTWARE: PatentIn Release #1.0, Version #1.25 31 (vi) CURRENT APPLICATION DATA: 32 33 (A) APPLICATION NUMBER: US 07/625668 34 (B) FILING DATE: 13-DEC-1990 35 (C) CLASSIFICATION: 36 37 (viii) ATTORNEY/AGENT INFORMATION: 38 (A) NAME: BROWDY, ROGER L 39 (B) REGISTRATION NUMBER: 25,618 40 (C) - REFERENCE/DOCKET NUMBER: WALLACH4 41 (ix) TELECOMMUNICATION INFORMATION: 42 43 (A) TELEPHONE: 202-628-5197 44 (B) TELEFAX: 202-737-3528 45 (C) TELEX: 248633 46 47 48 (2) INFORMATION FOR SEQ ID NO:1: 49 50 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 2175 base pairs 51 (B) TYPE: nucleic acid 52

(C) STRANDEDNESS: single

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54			(1) T(OPOLO	OGY:	line	ear									
55																	
56		(ii)	MOI	LECUI	LE TY	PE:	CDNA	J									
57 58																	
59		/ i v \		ATURE	. ·												
60		(TX)		A) NA		rev.	CDS										
61			•	•	•		256	163	20								
62			, .	, D	Oni		230.	102	20								
63		(ix)	FEA	ATURE	R :												
64		(,			_	KEY:	mat	pept	tide								
65							319										
66			•	•													
67																	
68		(xi)	SEÇ	QUENC	CE DE	ESCR	[PTIC	ON: S	SEQ :	ID NO	0:1:						
69																•	
70	CGGC	CCAG	TG A	ATCTI	rgaac	cc co	CAAAC	GCC	A GA	ACTG	GAGC	CTC	GTC	CAG A	AGAAT	TCTGA	60
71																	
72	GAAA	ATTA	AAA C	GCAG <i>I</i>	AGAGO	GA GO	GGA	GAGA	r cac	CTGG	BACC	AGG	CCGT	SAT (CTCT	ATGCCC	120
73																	
74	GAGT	CTCA	AAC (CCTC	AACTO	T C	ACCC	CAAGO	G CA	CTTG	GAC	GTC	CTGG	ACA (GACCO	SAGTCC	180
75 76																	
76	CGGG	AAGC	cc c	CAGC	ACTG	CC GC	CTGC	CACAC	C TG(CCCT	SAGC	CCA	AATGO	GG (GAGT	BAGAGG	240
77 78	CORM	300	10m (maaa	3 3 m/		- am/	3 ma	2 200	a am/		n ~ n ^	. ama	- am	- cm		201
78 79	CCAT	AGCI	GT (TGGC												G CCG	291
80						L -20		1 261	r Im	c va.	-19	_	, re	ı re	ı Let	1 Pro -10	
81					-2.	L -2(,				-1:	,				-10	
82	CTG	стс	СТС	СТС	CAC	СТС	ጥጥር	стс	CCA	מידמ	ጥልሮ	רככ	ጥሮል	GGG	СТТ	αντ	339
83	Leu																337
84					-5				0-1	1	-1-			5			
85										_				•			
86	GGA	CTG	GTC	CCT	CAC	CTA	GGG	GAC	AGG	GAG	AAG	AGA	GAT	AGT	GTG	TGT	387
87	Gly	Leu	Val	Pro	His	Leu	Gly	Asp	Arg	Glu	Lys	Arg	Asp	Ser	Val	Cys	
88			10				_	15	_		_	_	20			_	
89																	
90	CCC	CAA	GGA	AAA	TAT	ATC	CAC	CCT	CAA	AAT	AAT	TCG	ATT	TGC	TGT	ACC	435
91	Pro	Gln	Gly	Lys	Tyr	Ile	His	Pro	Gln	Asn	Asn	Ser	Ile	Cys	Cys	Thr	
92		25					30					35					
93																	
94																	483
95	Lys	Сув	His	Lys	Gly		Tyr	Leu	Tyr	Asn		Сув	Pro	Gly	Pro		
96	40					45					50					55	
97	03.0	~~~	3.00	~~~	mc	3.00	~~	mc~	~~~		000	m~~	me	3.00		mar.	F 3 4
98	CAG																531
99 100	Gln	vab	rnr	изр		игд	GIU	CAR	GIU		GIĀ	ser	rne	inr		ser	
100 101					60					65					70		
101	GAA	מממ	CAC	СТС	ACA	CAC	TGC	רייר	እ ርሮ	ጥርር	TCC	מממ	ጥርር	CGA	מממ	GAA	579
103	Glu																3,3
104				75	9		~ ₁ ~	_cu	80	~ <u>,</u> ,		_, 5	-J 5	85	-10		
105																	
106	ATG	GGT	CAG	GTG	GAG	ATC	TCT	TCT	TGC	ACA	GTG	GAC	CGG	GAC	ACC	GTG	627

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107 108 109	Met	Gly	Gln 90	Val	Glu	Ile	Ser	Ser 95	Сув	Thr	Val	Asp	Arg 100	Asp	Thr	Val	
110	TGT	GGC	TGC	AGG	AAG	AAC	CAG	TAC	CGG	CAT	TAT	TGG	AGT	GAA	AAC	CTT	675
111	Cys	Gly	Сув	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	Ser	Glu	Asn	Leu	
112		105					110					115					
113																	
114	TTC	CAG	TGC	TTC	AAT	TGC	AGC	CTC	TGC	CTC	AAT	GGG	ACC	GTG	CAC	CTC	723
115	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn	Gly	Thr	Val	His		
116	120					125					130					135	
117																	
118						CAG											771
119	Ser	Сув	GIn	GIU		Gln	Asn	Thr	vai		Thr	Сув	HIS	Ата		Pne	
120 121					140					145					150		
121	արար	СТА	ACA	CAA	DAC	GAG	ጥርጥ	CTC	TCC	ጥርጥ	ልርጥ	220	ጥርጥ	AAC	מממ	ACC	819
123						Glu											019
124	riie	Deu	nry	155	ASII	GIU	Cys	V G I	160	Cys	Ser	NBII	Cys	165	nys	Ser	
125				100					100					100			
126	CTG	GAG	TGC	ACG	AAG	TTG	TGC	CTA	CCC	CAG	ATT	GAG	ААТ	GTT	AAG	GGC	867
127						Leu											
128			170		•		•	175					180		•	•	
129																	
130	ACT	GAG	GAC	TCA	GGC	ACC	ACA	GTG	CTG	TTG	CCC	CTG	GTC	ATT	TTC	TTT	915
131	Thr	Glu	Asp	Ser	Gly	Thr	Thr	Val	Leu	Leu	Pro	Leu	Val	Ile	Phe	Phe	
132		185					190					195					
133																	
134						TCC											963
135		Leu	Cys	Leu	Leu	Ser	Leu	Leu	Phe	Ile	_	Leu	Met	Tyr	Arg	_	
136	200					205					210					215	
137	~~~	000	maa	220	maa	220	ama.	m 3 0	maa	3 000		mam	~~~		maa	202	1011
138						AAG											1011
139 140	GIII	Arg	пр	гуя	220	Lys	Leu	TYE	ser	225	\ var	Сув	GIY	гуя	230	Int	
141					220					223					230		
142	CCT	GAA	AAA	GAG	GGG	GAG	СТТ	GAA	GGA	ACT	ACT	ACT	AAG	CCC	CTG	GCC	1059
143						Glu											2007
144			-1-	235	1				240				-1-	245			
145			•														
146	CCA	AAC	CCA	AGC	TTC	AGT	CCC	ACT	CCA	GGC	TTC	ACC	CCC	ACC	CTG	GGC	1107
147	Pro	Asn	Pro	Ser	Phe	Ser	Pro	Thr	Pro	Gly	Phe	Thr	Pro	Thr	Leu	Gly	
148			250					255					260				
149																	
150						AGT											1155
151	Phe		Pro	Val	Pro	Ser		Thr	Phe	Thr	Ser		Ser	Thr	Tyr	Thr	
152		265					270					275					
153	~~~			mc=						~~~	~~~		~~~	a==	003	222	1000
154						AAC											1203
155		етλ	Asp	cys	Pro	Asn	rue	ATA	ATA	PTO	_	Arg	GIU	vaı	ALA		
156 157	280					285					290					295	
158	מממ	ጥሏጥ	CAG	GGG	ССТ	GAC	CCC	ልጥሮ	Стт	GCG	ACA	GCC	CTC	GCC	ጥርር	GAC	1251
159						Asp											2271
		- 1 -		1													

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160					300					305					310			
161 162 163 164 165															AAG Lys			1299
166 167 168 169															GTG Val		,	1347
170 171 172 173															GGG Gly			1395
174 175 176 177														-	TGC Cys			1443
178 179 180 181															ACG Thr 390			1491
182 183 184 185															GAC Asp			1539
186 187 188 189															GGC Gly			1587
190 191 192 193				CCG Pro								TGA	GCT	GCG (CCCT	GCGGGC		1640
194 195																GGAGGG		1700
196 197																ATGTAC		1760
198 199 200			-				-			-						SAGAGG ATGCCTC		1820 1880
201 202																CCTGA		1940
203 204	GCC	TTT?	rca (CAGTO	GCATA	AA GO	CAGT	rttt:	r tte	GTTT:	rtgt	TTTC	GTTT:	rgt '	TTTG:	ATTTT		2000
205 206	AATO	CAATO	CAT (GTTA	CACT	AA T	AGAA	ACTTO	G GC	ACTC	CTGT	GCC	CTCT	GCC 1	TGGA	CAAGCA		2060
207 208 209	CAT	AGCAI	AGC 1	rgaa(CTGT	CC T	AAGG	CAGG	G GC	GAGC	ACGG	AAC	AATG	GGG (CCTT	CAGCTG		2120
210 211 212	GAG	CTGT	GGA (CTTT'	rgta(CA T	ACAC!	LAAAT	A TT	CTGA	AGTT	AAA	AAAA	AAA i	AAAA	A		2175

213 214	(2)	INF	ORMA?	CION	FOR	SEQ	ID 1	NO: 2	:							
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215			(1)	SEQUE												
216				•		NGTH:				scra	3					
217				(B)		?E: 8										
218				(D)) TO	POLO	3Y:]	linea	ar							
219																
220		(:	Li) 1	MOLE	CULE	TYPE	E: pi	cote	Ĺn							
221																
222		()	(i) S	SEQUE	ENCE	DESC	CRIP	CION:	: SEÇ	2 ID	NO:2	2:				
223																
224	Met	Gly	Leu	Ser	Thr	Val	Pro	Asp	Leu	Leu	Leu	Pro	Leu	Val	Leu	Leu
225	-21	-20					-15					-10				
226																
227	Glu	Leu	Leu	Val	Gly	Ile	Tyr	Pro	Ser	Gly	Val	Ile	Gly	Leu	Val	Pro
228	-5				_	1	_			5			_		10	
229																
230	His	Leu	Glv	Asp	Ara	Glu	Lvs	Arg	Asp	Ser	Val	Cvs	Pro	Gln	Glv	Lvs
231			4	15				5	20			-1-		25	2	-4 -
232																
233	Tvr	Tle	His	Pro	Gln	Asn	Agn	Ser	Tle	Cvs	Cvg	Thr	T.vg	Cvg	ніс	T.vg
234	-1-		30					35		0,72	0,0		40	0,10		2,0
235			-										40			
236	C1.	Thr	Ф	Leu	Т	7.55	λαν	Cvc	D×o	C1	D×o	C1	C1 n	7 ~~	mh.∽	700
237	GIY	45	TYL	Leu	TÄT	ASII	50	Сув	PIU	GIY	PIO	55	GIII	Asp	TIIL	Asp
237		43					50					33				
239	C	7	01		01	C	01	C	nh-	m1	71-		01	3	77.5 -	T
	_	Arg	GIU	Cya	GIU		GIY	ser	Pne	Thr	_	ser	GIU	Asn	HIS	
240	60					65					70					75
241	_	•	_	_	_	_	_	_	_	_	_					
242	Arg	HIS	Cys	Leu		Cys	Ser	rys	Cys		Lys	Glu	Met	GIY		Val
243					80					85					90	
244	_	_				_	_					_		_		
245	Glu	Ile	Ser	Ser	Сув	Thr	Val	Asp	_	Asp	Thr	Val	Сув	_	Сув	Arg
246				95					100					105		
247																
248	Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe
249			110					115					120			
250																
251	Ası	ı Cys	s Se	r Lei	ı Cys	s Lei	ı Ası	n Gly	y Thi	c Vai	l Hi	s Le	ı Se	Cys	s Glr	n Glu
252		125					130					135				•
253																
254	Lys	Gln	Asn	Thr	Val	Cys	Thr	Сув	His	Ala	Gly	Phe	Phe	Leu	Arg	Glu
255	140					145		•			150				•	155
256																
257	Asn	Glu	Cvs	Val	Ser	Cvs	Ser	Asn	Cvs	Lvs	Lvs	Ser	Leu	Glu	Cvs	Thr
258			-1-		160	-1-			-1-	165	-1-				170	
259															_, 0	
260	Lve	Len	Cve	Leu	Dro	Gln	Tle	G1) er	Va 1	Larg	G1 11	Th.~	G111) en	Ser
261	пЛа	neu	Cys	175	FLO	GIII	TIE	GIU	180	AGT	nys	GIĀ	TIIL	185	vah	Ser
262				1/3					100					103		
263	C1	mh.∽	mh.∽	17 - 1	T 0	T 0	Dwa	T 0	17-1	T 1'~	Dh-	Dh.	61. -	T 0	C+	T 01-
	GIĀ	rnr		Val	reu	Leu	Pro		vaı	тте	rne	rne	-	reu	CAR	Leu
264			190					195					200			
265																

266 267	Leu	Ser 205	Leu	Leu	Phe	Ile	Gly 210	Leu	Met	Tyr	Arg	Tyr 215	Gln	Arg	Trp	Lys
268 269	Ser	T.vs	Leu	Tvr	Ser	Ile	Val	Cvs	Glv	Lvg	Ser	Thr	Pro	Glu	T.vg	Glu
270	220	-1-		-1-		225		-7-	1	-,-	230				_,,	235
271																
272	Gly	Glu	Leu	Glu	Gly	Thr	Thr	Thr	Lys	Pro	Leu	Ala	Pro	Asn	Pro	Ser
273					240					245					250	
274	Dh.		D	m\	n	01	Db =	ml	D	ml	.	a 1	5 1		D	••- 1
275 276	Pne	ser	Pro		Pro	Gly	Pne	Thr	260	Thr	Leu	GIĀ	Pne		Pro	Val
277				255					260					265		
278	Pro	Ser	Ser	Thr	Phe	Thr	Ser	Ser	Ser	Thr	Tvr	Thr	Pro	Glv	Asn	Cvs
279			270				-	275	DCI		-1-	****	280	017	1101	0,0
280																
281	Pro	Asn	Phe	Ala	Ala	Pro	Arg	Arg	Glu	Val	Ala	Pro	Pro	Tyr	Gln	Gly
282		285					290	_				295		_		_
283																
284		Asp	Pro	Ile	Leu	Ala	Thr	Ala	Leu	Ala		Asp	Pro	Ile	Pro	
285	300					305					310	•				315
286	D	T	a 1	T	M	a 1	3		77.	**! -	T	D	a1	a	.	
287 288	Pro	Leu	GIN	гла	320	Glu	Asp	ser	Ala	325	гля	Pro	GIN	ser	330	Asp
289					320					323					330	
290	Thr	Asp	Asp	Pro	Ala	Thr	Leu	Tvr	Ala	Val	Val	Glu	Asn	Val	Pro	Pro
291				335				-1-	340					345		
292																
293	Leu	Arg	Trp	Lys	Glu	Phe	Val	Arg	Arg	Leu	Gly	Leu	Ser	Asp	His	Glu
294			350					355					360			
295		_														_
296	Ile		Arg	Leu	Glu	Leu		Asn	Gly	Arg	Cys		Arg	Glu	Ala	Gln
297 298		365					370					375				
298	Tur	Sor	Mot	Lou	λla	Thr	Trn.	Ara	Ara	Ara	Thr	Dro	A ~~	Ara	Clu	בו מ
300	380	Ser	Mec	Deu	ALG	385	ırp	ALG	ALG	nry	390	FIU	ALG	ALG	GIU	395
301	500					505					370					333
302	Thi	r Lei	ı Glı	ı Leı	ı Leı	ı Gly	Aro	y Va	l Lei	ı Aro	a Ası	o Met	: Ası	o Lei	ı Leı	ı Gly
303					400	•				405	•	•	•			. •
304																
305	Cys	Leu		-		Glu				-	Gly	Pro				Pro
306				415					420					425		
307	_		_	_	_	_	_									
308	Pro	Ala		Ser	Leu	Leu	Arg									
309 310			430													
311	121	TNF	ימאקר	PTON	FOD	SEQ	י חד	ر. د د ۱۵۰	•							
312	(2)	T14E (JIWIH.	14	LOR	222	10 1		-							
313		(i) SEC	QUENC	CE CI	HARAG	CTER	ISTI	cs:							
314		, -				H: 26										
315			(1	B) T	YPE:	nuc	leic	acio	£							
316						DEDNI			gle							
317			(I) T(OPOL	OGY:	line	ear								
318																

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319	(ii) MOLECULE TYPE: protein	
320		
321		
322		
323	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:	
324		
325	GGNGTYCCNT TYATRTARGT DGGNGT	26
326		
327	(2) INFORMATION FOR SEQ ID NO:4:	
328		
329	(i) SEQUENCE CHARACTERISTICS:	
330	(A) LENGTH: 17 base pairs	
331	(B) TYPE: nucleic acid	
332	(C) STRANDEDNESS: single	
333	(D) TOPOLOGY: linear	
334		
335	(ii) MOLECULE TYPE: cDNA	
336	(,	
337		
338		
339	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:	
340	(··-, <u>-</u>	
341	GGNGTYCCNT TYATRTA	17
342		
343	(2) INFORMATION FOR SEQ ID NO:5:	
344	(-)	
345	(i) SEQUENCE CHARACTERISTICS:	
346	(A) LENGTH: 17 base pairs	
347	(B) TYPE: nucleic acid	
348	(C) STRANDEDNESS: single	
349	(D) TOPOLOGY: linear	
350	(5) 101020011 12002	
351	(ii) MOLECULE TYPE: cDNA	
352	(42) 1.0220022 2222 05.42	
353	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:	•
354	(NI) DECEMBE DECOMITION DEC 15 NO. 5.	
355	TTYATRTARG TDGGNGT	17
356		
357	(2) INFORMATION FOR SEQ ID NO:6:	
358	(2) INICIALIZATION FOR DEG ID NO. 0.	
359	(i) SEQUENCE CHARACTERISTICS:	
360	(A) LENGTH: 27 base pairs	
361	(B) TYPE: nucleic acid	
362	(C) STRANDEDNESS: single	
363	(D) TOPOLOGY: linear	
364	(b) totopoot, timest	
365	(ii) MOLECULE TYPE: cDNA	
366	(II) MODECODE IIFE. CDMM	
367		
368		
369	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:	
370	(VI) PEÑORMOR DESCRIPTION: PEÑ ID MO:0:	
370	CGGCCGATGG GCCTCTCCAC CGTGCCT	27
J / I	caaccautaa accicicouc caiacci	21

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372				
373 374	(2)		RMATION FOR SEQ ID NO:7:	
375		(i)	SEQUENCE CHARACTERISTICS:	
376			(A) LENGTH: 27 base pairs	
377			(B) TYPE: nucleic acid	
378			(C) STRANDEDNESS: single	
379			(D) TOPOLOGY: linear	
380				
381		(ii)	MOLECULE TYPE: cDNA	
382				
383				
384				
385		(xi)	SEQUENCE DESCRIPTION: SEQ ID NO:7:	
386				
387	AAT	AGTATI	TT CTAATCTGGG GTAGGCA	27
388				
389	(2)	INFO	RMATION FOR SEQ ID NO:8:	
390				
391		(1)	SEQUENCE CHARACTERISTICS:	
392			(A) LENGTH: 6 amino acids	
393			(B) TYPE: amino acid	
394 395			(C) STRANDEDNESS: single	
396			(D) TOPOLOGY: linear	
397		1333	MOLECULE MYDE. nontido	
398		(11)	MOLECULE TYPE: peptide	
399		(vi)	SEQUENCE DESCRIPTION: SEQ ID NO:8:	
400		(**)	DECOMOD BEDOMITION. DEC IN NO.0.	
401		Met	Asp Ser Val Cys Pro	
402		1	5	
403		_	· *	
404	(2)	INFO	RMATION FOR SEQ ID NO:9:	
405	` ′		-	
406		(i)	SEQUENCE CHARACTERISTICS:	
407			(A) LENGTH: 23 base pairs	
408			(B) TYPE: nucleic acid	
409			(C) STRANDEDNESS: single	
410			(D) TOPOLOGY: linear	
411	_	_		
412		(ii)	MOLECULE TYPE: cDNA	
413				
414				
415			_	
416		(xi)	SEQUENCE DESCRIPTION: SEQ ID NO:9:	
417				
418	AAT?	CATG	GA TAGTGTGTGT CCC	23
419		T1156-	DVAMION BOD GEO. ID NO. 10	
420	(2)	INFO	RMATION FOR SEQ ID NO:10:	
421 422		123	CECUENCE GUADAGEDICALOC.	
422		(1)	SEQUENCE CHARACTERISTICS: (A) LENGTH: 23 base pairs	
424			(B) TYPE: nucleic acid	
			(2)	

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425	(C) STRANDEDNESS: single	
426	(D) TOPOLOGY: linear	
427	(-,	
428	(ii) MOLECULE TYPE: cDNA	
429	(22) 110220022 21121 02111	
430		
431		
	(with GEOUPHOR PROGRESSION, GEO. ID. NO. 10.	
432	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:	
433		
434	GTACCTATCA CACACAGGGG TTC	23
435		
436	(2) INFORMATION FOR SEQ ID NO:11:	
437		
438	(i) SEQUENCE CHARACTERISTICS:	
439	(A) LENGTH: 22 amino acids	
440	(B) TYPE: amino acid	
441	(C) STRANDEDNESS: single	
442	(D) TOPOLOGY: linear	
443		
444	(ii) MOLECULE TYPE: peptide	
445	• • •	
446		
447	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:	
448	(,	
449	Ala Gln Val Ala Phe Thr Pro Tyr Ala Pro Glu Pro Gly Ser Thr Cys	
450	1 5 10 15	
451		
452	Ave Tou Ave Cla May May	
453	Arg Leu Arg Glu Tyr Tyr	
454	20	
	(2) INFORMATION FOR ORD ID NO. 12.	
455	(2) INFORMATION FOR SEQ ID NO:12:	
456	(') GEOURNAR GUARAGERTAGA	
457	(i) SEQUENCE CHARACTERISTICS:	
458	(A) LENGTH: 7 amino acids	
459	(B) TYPE: amino acid	
460	(C) STRANDEDNESS: single	
461	(D) TOPOLOGY: linear	
462		
463	(ii) MOLECULE TYPE: cDNA	
464		
465		
466		
467	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:	
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469	Leu Cys Ala Pro Leu Arg Lys	
470	1 5	
471		
472	(2) INFORMATION FOR SEQ ID NO:13:	
473	, ,	
474	(i) SEQUENCE CHARACTERISTICS:	
475	(A) LENGTH: 9 amino acids	
476	(B) TYPE: amino acid	
477	(C) STRANDEDNESS: single	
	(a) prigmphuppe, prudre	

		(D) TOPOLOGY: linear
479 480		(ii) MOLECULE TYPE: peptide
481		(11) MOLECULE TIPE: pepcide
482		
483		
484		(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:
485		(XI) DEGORACE DESCRIPTION. SEQ ID NO.15.
486		Cys Arg Pro Gly Phe Gly Val Ala Arg
487		1 5
488		•
489	(2)	INFORMATION FOR SEQ ID NO:14:
490	(-,	The state of the s
491		(i) SEQUENCE CHARACTERISTICS:
492		(A) LENGTH: 11 amino acids
493		(B) TYPE: amino acid
494		(C) STRANDEDNESS: single
495		(D) TOPOLOGY: linear
496		(-,
497		(ii) MOLECULE TYPE: peptide
498		(a c)
499		
500		(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:
501		
502		Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys
503		1 5 10
504		
505	(2)	INFORMATION FOR SEQ ID NO:15:
506	•	_
507		(i) SEQUENCE CHARACTERISTICS:
508		(-,
		(A) LENGTH: 12 amino acids
509		· · · =
509 510		(A) LENGTH: 12 amino acids
		(A) LENGTH: 12 amino acids (B) TYPE: amino acid
510		(A) LENGTH: 12 amino acids(B) TYPE: amino acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear
510 511		(A) LENGTH: 12 amino acids(B) TYPE: amino acid(C) STRANDEDNESS: single
510 511 512		(A) LENGTH: 12 amino acids(B) TYPE: amino acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear
510 511 512 513		(A) LENGTH: 12 amino acids(B) TYPE: amino acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear
510 511 512 513 514		(A) LENGTH: 12 amino acids(B) TYPE: amino acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear
510 511 512 513 514 515 516 517		(A) LENGTH: 12 amino acids(B) TYPE: amino acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear
510 511 512 513 514 515 516 517 518		(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:
510 511 512 513 514 515 516 517 518 519		(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide
510 511 512 513 514 515 516 517 518 519 520		(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:
510 511 512 513 514 515 516 517 518 519 520 521		(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15: Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys Ser 1 5 10
510 511 512 513 514 515 516 517 518 519 520 521 522	(2)	(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15: Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys Ser 1 5 10
510 511 512 513 514 515 516 517 518 519 520 521 522 523	(2)	(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15: Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys Ser 1 5 10 INFORMATION FOR SEQ ID NO:16:
510 511 512 513 514 515 516 517 518 519 520 521 522 523 524	(2)	(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15: Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys Ser 1 5 10 INFORMATION FOR SEQ ID NO:16: (i) SEQUENCE CHARACTERISTICS:
510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525	(2)	(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15: Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys Ser 1 5 10 INFORMATION FOR SEQ ID NO:16: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 8 amino acids
510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526	(2)	(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15: Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys Ser 1 5 10 INFORMATION FOR SEQ ID NO:16: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 8 amino acids (B) TYPE: amino acid
510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527	(2)	(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15: Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys Ser 1 5 10 INFORMATION FOR SEQ ID NO:16: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 8 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single
510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528	(2)	(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15: Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys Ser 1 5 10 INFORMATION FOR SEQ ID NO:16: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 8 amino acids (B) TYPE: amino acid
510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527	(2)	(A) LENGTH: 12 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15: Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys Ser 1 5 10 INFORMATION FOR SEQ ID NO:16: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 8 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: single

531		
532		
533		
534		(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:
535		
536		Ser Cys Gly Pro Ser Tyr Pro Asp
537		1 5
538		-
539	(2)	INFORMATION FOR SEQ ID NO:17:
540	(-,	
541		(i) SEQUENCE CHARACTERISTICS:
542		(A) LENGTH: 13 amino acids
543		(B) TYPE: amino acid
544		
545		(C) STRANDEDNESS: single
		(D) TOPOLOGY: linear
546		(!!) MATRONER BURN 113
547		(ii) MOLECULE TYPE: peptide
548		
549		
550		(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:
551		
552		Phe Thr Pro Tyr Ala Pro Glu Pro Gly Ser Thr Cys Arg
553		1 5 10
554		
555	(2)	INFORMATION FOR SEQ ID NO:18:
556		
557		(i) SEQUENCE CHARACTERISTICS:
558		(A) LENGTH: 13 amino acids
559		(B) TYPE: amino acid
560		(C) STRANDEDNESS: single
561		(D) TOPOLOGY: linear
562		• •
563		(ii) MOLECULE TYPE: peptide
564		
565		
566		
567		(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:
568		(x1) bbgolnob bbbox1111on. bbg 1b no.10.
569		Leu Arg Glu Tyr Tyr Asp Gln Thr Ala Gln Met Cys Cys
570		1 5 10
571		1 10
572	(2)	INFORMATION FOR SEC ID NO. 10.
573	(2)	INFORMATION FOR SEQ ID NO:19:
		(!) CHOURNAR OUTDIAMENTAG.
574		(i) SEQUENCE CHARACTERISTICS:
575		(A) LENGTH: 9 amino acids
576		(B) TYPE: amino acid
577		(C) STRANDEDNESS: single
578		(D) TOPOLOGY: linear
579		
580		(ii) MOLECULE TYPE: peptide
581		
582		
583		

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584
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587
588
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589
590
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591
592
               (A) LENGTH: 17 amino acids
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               (C) STRANDEDNESS: single
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595
               (D) TOPOLOGY: linear
596
597
          (ii) MOLECULE TYPE: peptide
598
599
600
         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:
601
602
          Ala Gln Val Ala Phe Thr Pro Tyr Ala Pro Glu Pro Gly Ser Thr Cys
603
604
605
          Arq
606
607
     (2) INFORMATION FOR SEQ ID NO:21:
608
609
610
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               (A) LENGTH: 15 amino acids
611
612
               (B) TYPE: amino acid
               (C) STRANDEDNESS: single
613
               (D) TOPOLOGY: linear
614
615
616
         (ii) MOLECULE TYPE: peptide
617
618
619
620
         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:
621
622
          Val Ala Phe Thr Pro Tyr Ala Pro Glu Pro Gly Ser Thr Cys Arg
623
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624
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626
627
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628
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629
               (B) TYPE: amino acid
630
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631
               (D) TOPOLOGY: linear
632
         (ii) MOLECULE TYPE: peptide
633
634
635
636
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(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:
637
638
639
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641
      (2) INFORMATION FOR SEQ ID NO:23:
642
643
644
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645
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646
               (B) TYPE: amino acid
647
               (C) STRANDEDNESS: single
648
               (D) TOPOLOGY: linear
649
         (ii) MOLECULE TYPE: peptide
650
651
652
653
654
         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:
655
656
          Ile Cys Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu Ser
657
658
659
     (2) INFORMATION FOR SEQ ID NO:24:
660
661
          (i) SEQUENCE CHARACTERISTICS:
662
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663
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666
         (ii) MOLECULE TYPE: peptide
667
668
669
670
671
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672
673
          Pro Gly Thr Glu Thr Ser Asp Val Val Cys Lys Pro Cys Ala Pro Gly
674
675
676
          Thr Phe Ser Lys
677
                       20
678
679
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685
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         (ii) MOLECULE TYPE: peptide
687
688
689
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Raw Sequence Listing

05/08/92 06:31:46

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691		
692	Сув	Arg Pro Gly Phe Gly Val Ala Arg Pro Gly Thr Glu Thr Ser Asp
693	1	5 10 15
694		
695	Val	Val Cys Lys
696		20
697		
698	(2) INFO	RMATION FOR SEQ ID NO:26:
699		
700	(i)	SEQUENCE CHARACTERISTICS:
701		(A) LENGTH: 18 amino acids
702		(B) TYPE: amino acid
703		(C) STRANDEDNESS: single
704		(D) TOPOLOGY: linear
705		
706	(ii)	MOLECULE TYPE: peptide
707		
708		
709		
710	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO:26:
711		
712	Thr	Ser Asp Thr Val Cys Asp Ser Cys Glu Asp Ser Thr Tyr Thr Gln
713	1	5 10 15
714		
715	Leu	Trp
716		-

PAGE: 1

SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/07/625,668A

DATE: 05/08/92 TIME: 06:31:53

LINE ERROR

ORIGINAL TEXT

33 Wrong application Serial Number

(A) APPLICATION NUMBER: US 07./625668

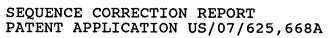
PAGE: 1

SEQUENCE MISSING ITEM REPORT PATENT APPLICATION US/07/625,668A

DATE: 05/08/92 TIME: 06:31:53

MANDATORY IDENTIFIER THAT WAS NOT FOUND

PRIOR APPLICATION DATA APPLICATION NUMBER FILING DATE



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PAGE: 1

CORRECTED TEXT